RouteFinder® SOHO

SOHO Security Appliance

EDGE Models
RF825-E, RF825-E-AP
CDMA Models
RF825-C-Nx, RF825-C-Nx-AP

Quick Start Guide

MultiTech Systems

RouteFinder SOHO Security Appliance Quick Start Guide
Models: EDGE Models: RF825-E, RF825-E-AP
CDMA Models: RF825-C-Nx, RF825-C-Nx-AP
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Revision	Date	Description
A	06/19/07	Initial release. Software version 1.30
B	11/07/07	Software version 1.40. Removed Wireless Activation instructions.

Patents

This device is covered by one or more of the following U.S. Patent Numbers: 6,219,708; 5,301,274; 5,309,562; 5,355,365; 5,355,653; 5,452,289; 5,453.986.

Trademarks

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Introduction

Welcome to the world of Internet security. Your Multi-Tech RouteFinder SOHO Internet security appliance, RF825 series, is ideal for the small office or home office (SOHO) that needs secure access to a corporate LAN.

The RF825 CDMA/EDGE-AP builds offer secure 802.11b/g Wi-Fi® wireless connectivity.

RouteFinder Ship Kit Contents

The RouteFinder shipping box contains the following items:

- One RF825 RouteFinder
- Power Supply
- RJ45 Ethernet Cable
- 2.4 GHz 5dBi SWI-Reverse-F Swivel Access Point Antenna (Included with the Wi-Fi® models only)
- 2dB Cellular Antenna (not included with all models)
- This Quick Start Guide
- A CD with a 30-day evaluation copy of IPSec VPN Client software (not the full working version).
- One RouteFinder CD which contains RouteFinder documentation and Adobe Acrobat Reader.

If any of the items is missing or damaged, please contact Multi-Tech Systems, Inc.

Safety Warnings

Ethernet Ports Caution

The Ethernet ports are **not** designed to be connected to a Public Telecommunication Network.

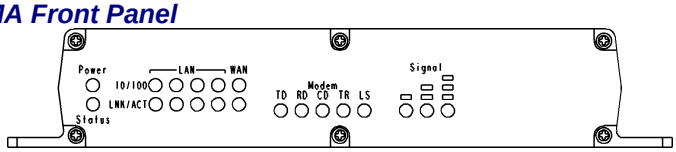
Handling Precautions

All devices must be handled with certain precautions to avoid damage due to the accumulation of static charge. Although input protection circuitry has been incorporated into the devices to minimize the effect of this static build up, proper precautions should be taken to avoid exposure to electrostatic discharge during handling and mounting.

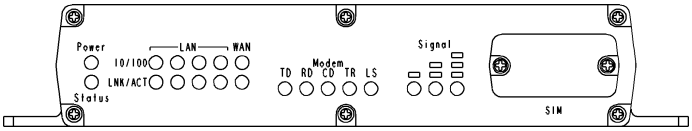
Caution: Maintain a separation distance of at least 20 cm (8 inches) between the transmitter's antenna and the body of the user or nearby persons. The modem is not designed for, nor intended to be, used in applications within 20 cm (8 inches) of the body of the user.

Front and Back Panels

CDMA Front Panel

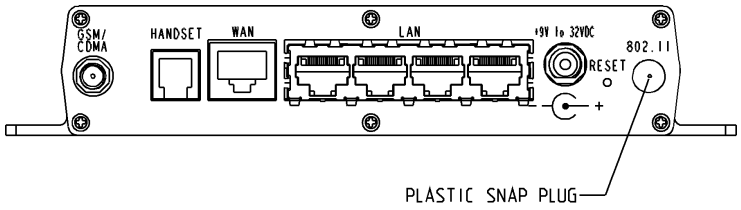


EDGE Front Panel

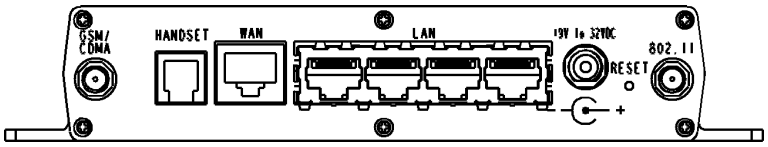


LEDs	Description
Power	Lights when power is being supplied to the RouteFinder.
Status	When functioning normally, the LED blinks. The LED is a solid light when the RouteFinder is booting up, saving the configuration, restarting, or updating the firmware.
LAN 10/100M	Lights when a successful connection to the 100BaseT LAN is established. Off when connected to the 10BaseT.
LAN Link/ ACT	Lights when the LAN port has a valid Ethernet connection. Blinks when it is receiving or transmitting data.
WAN 10/100M	Lights when a successful connection to the 100BaseT WAN is established. Off when connected to the 10BaseT.
WAN Link/ ACT	Lights when the WAN port has a valid Internet connection. Blinks when it is receiving or transmitting data.
Modem	**TD** **Transmit Data.** Blinks when the modem is transmitting data to your wireless carrier. **RD** **Receive Data.** Blinks when the modem is receiving data from your wireless carrier. **CD** **Carrier Detect.** Lights when the modem detects a valid carrier signal from a wireless carrier. **TR** **(Data) Terminal Ready.** Lights when the modem is trying to establish a wireless connection. **LS** **Link Status.** **EDGE:** Blinks when there is network activity between carrier and cellular module. Otherwise, light will be off. **CDMA: Continuous "on" –** The wireless modem is not registered on the network. **Flashing –** Network registration OK. **Off –** Modem is off (not ready) or in download mode.

CDMA & EDGE Back Panel



CDMA-AP & EDGE-AP Back Panel



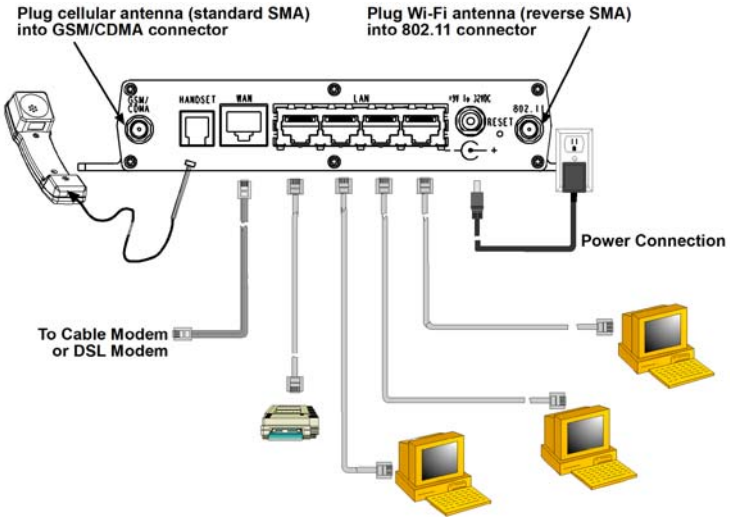
Connector	Description
GSM/EDGE Antenna Connector	2 dBi cellular antenna connector. **Note:** The antenna must be attached in order for the RouteFinder to be operational.
Handset	Connector for a handset.
WAN	WAN (10/100BaseT) port connects the DSL modem or cable modem.
LAN Ports	There are 4 LAN ports. You can connect to PCs, FTP servers, printers, or other devices you want to put on your network.
+9 Volt to 32VDC	RouteFinder power source can range from 9 volts to 32VDC.
Reset	The Reset button resets the RouteFinder to its factory defaults. Press and hold the button until the Status LED blinks, and then release it. Do not press this button unless you want to restore all settings to the factory defaults.
802.11	2.4 GHz 5dBi SWI-Reverse-F antenna connector. **Note:** The antenna must be attached in order for the RouteFinder to be operational.

Getting Started

This section of the Quick Start Guide covers cabling the RouteFinder, setting up TCP/IP communications in order to connect to the Internet through a wireless provider's service, activating a wireless account, and connecting to the Internet. See the User Guide for detailed information on the RouteFinder software program.

Cabling Your RouteFinder

To use your RouteFinder, make the appropriate connections to PCs, a cable or xDSL modem, an analog modem, and AC power. For AP models, attach the antennas.



1. Turn the power off on all network devices (PCs, cable modems, DSL modems, analog modems, and the RouteFinder).
2. Plug the RJ-45 cable into the Ethernet port on the PC and the LAN port on the RouteFinder. (If you have more than one PC, connect the others in the same way to the other LAN ports).
3. Connect the provided power supply cable to the 9 volt power port on the back of the RouteFinder, and plug the other end of the power supply into an AC power outlet as shown.
4. For the RF825-AP, attach the cellular antenna and the AP antenna. **Note:** Be sure to locate this appliance where there is wireless coverage.

5. If a DSL or cable modem is desired, connect a network cable from the DSL modem or cable modem to the WAN port on the RouteFinder.

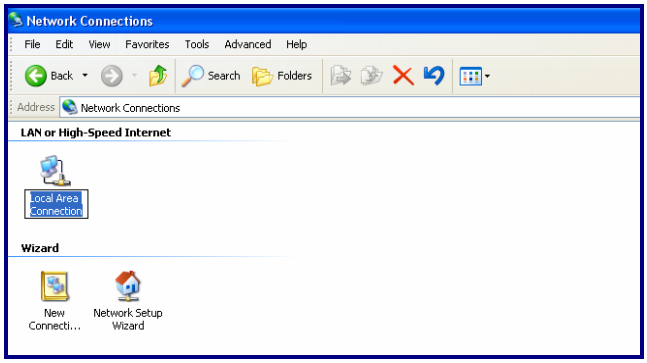
Establishing a TCP/IP Connection

The following directions establish a TCP/IP connection at the workstation so the PC can communicate with the RouteFinder. The RouteFinders have built-in DHCP functionality, so you can set the PC to obtain a dynamic IP address. The following directions were written using a Windows 2000+ / XP operating system.

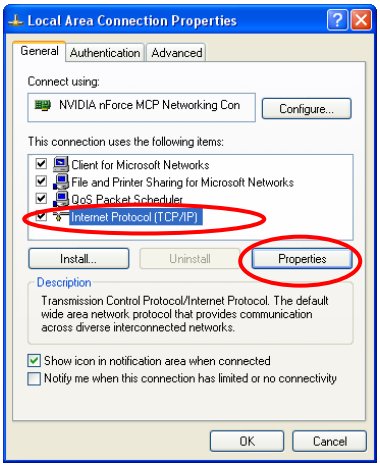
Obtaining a Dynamic IP Address

To obtain a dynamic IP address so it can be assigned to the Ethernet port:

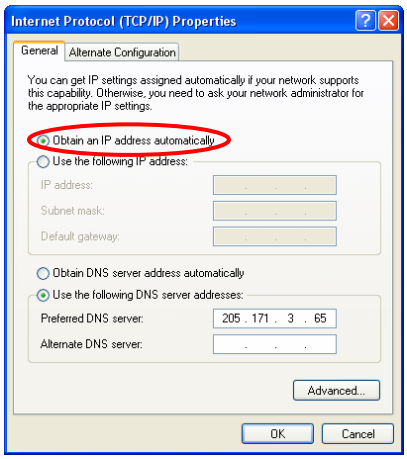
1. Make the RouteFinder connections as described on the previous page.
2. Click **Start** | **Settings** | **Control Panel**. Double-click the **Network Connections** icon.
3. The *Network Connections* screen displays. Right-click the **Local Area Connection** icon and choose **Properties** from the drop down list.



4. The **Local Area Connection Properties** dialog box displays.
   - Select I**nternet Protocol [TCP/IP]**.
   - Click the **Properties** button.



5. Once you click the **Properties** button, the following screen displays. To have your DCHP client obtain a dynamic IP address, click the **Obtain an IP address automatically** button.


Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
205 . 171 . 3 . 65
Alternate DNS server:
Advanced...
OK
Cancel

6. Close out of the Control Panel.
7. Repeat these steps for each PC on your network.

Setting a Fixed IP Address

To set a Fixed IP Address, check **Specify an IP address** instead of **Obtain an IP address automatically**. Then click **OK**.

1. Enter the workstation IP address as **192.168.2.x**. Note that the **x** in the address stands for numbers 101 and up.
2. Enter the Subnet mask as 255.255.255.0
3. Enter the Default gateway as 192.168.2.1
4. Close out of the Control Panel.
5. Repeat these steps for each PC on your network.

Obtaining and Activating a Wireless Account

You may want to use a wireless connection to the Internet in case your Ethernet WAN connection goes down. Before you can use the wireless feature, you must obtain a wireless account through a service provider and then activate the account.

Activation Notices

Please see the wireless account **Activation Notices** located on the MultiModem CD. Choose the one for your wireless network provider and follow the directions to activate your account. These directions are also included in your ship kit.

Connecting to the Internet Through the Cellular Provider's Service

Important Note About Provider Fees

Your wireless service provider will charge you for your data usage. Please check with your provider to make sure you are aware of their charges.

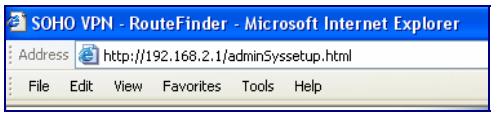
If you plan to use the RouteFinder for large amounts of data transfers, Multi-Tech recommends an unlimited data plan with your account. Multi-Tech will not be responsible for any charges relating to your bill.

Connecting to the Internet Steps

1. Turn on your PC and login. Make sure your LAN connection is set to *Obtain an IP Address Automatically* (see the section *Setting a TCP/IP Connection*)
2. Connect the RouteFinder LAN port to the PC using the RJ45 cable and apply power by plugging in the power cable.
3. Attach the antennas.
4. For EDGE models, make sure your SIM card is inserted correctly.
5. From the workstation, open the command window by clicking the **Start** button and selecting **Run**.
6. Type **CMD** to open the command window. Click **OK**.
7. When the command window opens, type **IPCONFIG**.
8. Check to make sure your LAN connection has received an IP address in the 192.168.2.x subnet from the RouteFinder. If not, type **IPCONFIG /RELEASE**, and then type **IPCONFIG /RENEW** to see if you receive an IP address. Close the command window.

9. Open a Web browser and complete the following:

- In the **Address bar** type **http://192.168.2.1**

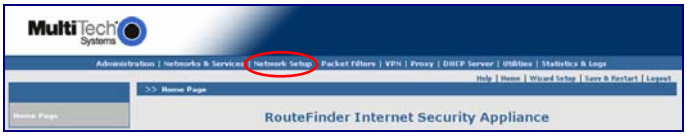

SOHO VPN - RouteFinder - Microsoft Internet Explorer
Address
http://192.168.2.1/adminSyssetup.html
File Edit View Favorites Tools Help

This opens the Routefinder's Web Management software. See the User Guide for more about the software.

- Click **Go**.
- The *Login* screen displays.

- Type the following:
  For **Username:** *admin.*
  For **Password:** *admin*

10. Once you are logged in, you must setup the PPP functionality. Select **Network Setup** from the Menu bar, and then select *PPP Cellular/Analog Backup* when the Network Setup screen displays. See the User Guide for an example of this screen.


MultiTech Systems
Administration | Networks & Services | Network Setup | Packet Filters | VPN | Proxy | DHCP Server | Utilities | Statistics & Logs
Help | Home | Wizard Setup | Save & Restart | Logout
>> Home Page
RouteFinder Internet Security Appliance

Enter the following on the *PPP Cellular/Analog Backup* screen to configure the PPP dialer:

Status:	Check this box to enable PPP.
Dial-on-Demand:	Select Disable (select *disable* to stay connected at all times).
Idle time out:	0 (zero indicates that the connection will not disconnect)
User Name:	Enter your user name. There is no default.
Password:	Enter your password. There is no default.
Baud Rate:	For CDMA models, select **115200**. For EDGE models, select **230400**.

Dial Number: **For CDMA models**, type **#777**
For EDGE models, type ***99***1#**.
Save: Click the **Save** button.
Init String 1: For EDGE models, type AT+CGDCONT=1,"IP","<APN>"
Note: The APN (Access Point Name) is assigned by your wireless service provider. An access point is an IP network to which a mobile device can be connected.
Signal Strength Command: For CDMA, enter **AT+CCED**.
For EDGE, enter **AT+CSQ**.
Save: Click the **Save** button.

11. Click **Save & Restart** (located on the Menu bar).
12. After the RouteFinder has restarted and the **Status** light is flashing, wait for about 1 minute to be sure that the **TR** and **CD** LEDs are lit and showing a solid light (not blinking).
13. From the workstation, open the command window by clicking the **Start** button and selecting **Run**.
14. Type **CMD** to open the command window. Click **OK.**
15. When the command window opens, type **IPCONFIG /RELEASE** to release your current IP received from the RouteFinder.
16. Then type **IPCONFIG /RENEW** to renew your IP address from the RouteFinder. You should also receive a DNS address from the RouteFinder.
17. Close the command window.
18. Open a Web browser. You are now connected to the Internet.
19. To verify a connection, go to the RouteFinder's software screen, *Statistics & Logs > PPP Cellular/Analog Log*.

To Disable Your Cellular Connection

Uncheck the *Status* box for the PPP option by using the RouteFinder's Web Management software *Wizard Setup* screen or select *Network Setup > PPP Cellular/Analog Backup* and disable *PPP.*

Additional Configuration of the Cellular Modem

You may want to further communicate directly to the cellular modem for checking signal strength, verifying network registration, and/or troubleshooting your Internet connection. This information is available in the User Guide.

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